

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte GARY T. BARNES

---

Appeal No. 1999-2274  
Application No. 08/811,787

---

HEARD: July 10, 2000

---

Before KRASS, THOMAS and BLANKENSHIP, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-5, 10-16 and 20-42, all of the claims pending in this reissue application.

The invention is directed to an energy discriminating radiation detector for use in an imaging system. The system allows both high and low energy images to be obtained simultaneously.

Representative independent claim 1 is reproduced as follows:

1. In an imaging system, an energy discriminating radiation detector comprising:

- (a) a first element comprising a first material of a kind which is preferentially responsive to penetrative radiation of a first energy range;
- (b) a second element comprising a second material different in kind from said first material and of a kind which is preferentially responsive to penetrative radiation of a second energy range extending higher than said first energy range and which is positioned to receive radiation which has penetrated through a portion of said first element;
- (c) a filter of penetrative radiation interposed between said first and second elements; and
- (d) means coupled to said elements for producing an image of a portion of an object from radiation emerging from the object and incident on the first and second elements.

The examiner relies on the following references:

Alvarez et al. [Alvarez]	4,029,963	Jun. 14, 1977
Allport	4,037,104	Jul. 19, 1977
Brooks	4,247,774	Jan. 27, 1981

Claims 1-5, 10-16 and 20-42 stand rejected under 35 U.S.C. 103 as unpatentable over either one of Alvarez or Brooks, in view of Allport.

Appeal No. 1999-2274  
Application No. 08/811,787

Reference is made to the briefs and the answer for the respective positions of appellant and the examiner.

### OPINION

We reverse.

The initial burden is on the examiner to establish a case of prima facie obviousness. In our view, the examiner has not presented such a case.

While the rejection of all the claims relies on either Alvarez or Brooks as the primary reference to show an imaging system and other claimed elements, the examiner admits that neither of these primary references discloses a filter between the phosphors. The examiner relies on Allport for the teaching of positioning a filter as claimed.

In order for a reference to be properly applied in a rejection based on 35 U.S.C. § 103, that reference must be from an art that is “analogous” to the claimed subject matter. A reference is “analogous art” if it is within an inventor’s field of endeavor or, if not within the same field of endeavor, if reasonably pertinent to the problem addressed by the inventor. In re Clay, 966 F.2d 656, 658-9, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

In the instant case, Allport is clearly not in appellant's field of endeavor since the instant claimed subject matter is directed to an energy discriminating radiation detector in an imaging system (though some claims do not have an imaging limitation) while Allport is directed to thickness gauging. There is no imaging application suggested by Allport and even though the examiner suggests that the Allport detectors "could be used to form an image," we agree with appellant that this is not the standard for the determination of whether a reference is within appellant's field of endeavor.

Since Allport is clearly not within appellant's field of endeavor, we look to see if Allport is at least reasonably pertinent to the problem appellant was attempting to solve. We find that Allport is not reasonably pertinent. In accordance with Clay, we must look to the purposes of the invention and the prior art in order to determine whether the reference is reasonably pertinent to the problem the invention attempts to solve. Again, since Allport is directed to thickness gauging and the instant invention is directed to energy discrimination radiation detectors for imaging, it does not appear that the skilled artisan would have had any reason to look to Allport for help in solving the problem of radiation imaging or of enhancing the image of particular types of materials

by using the energy subtraction method described in the instant specification. Thus, we do not find Allport to be reasonably pertinent to the problem appellant was attempting to solve.

Accordingly, we hold that Allport does not constitute analogous art and, therefore, has been improperly applied in combination with either Alvarez or Brooks to establish obviousness of the instant claimed subject matter within the meaning of 35 U.S.C. § 103. As such, we will not sustain the rejection of claims 1-5, 10-16 and 20-42 under 35 U.S.C. § 103.

We also note that while it is not, per se, determinative of the issue, Dr. Allport himself declares that a “practitioner in the x-ray imaging field at the time the Barnes ‘688 patent was filed would not have been aware of my ‘104 patent and would not have considered it reasonably pertinent to the particular imaging problem with which Dr. Barnes was involved” [tab 4, exhibit 4 to the appendix to the principal brief].

We further note the many declarations submitted by appellant as objective evidence of nonobviousness through commercial success, copying by others, long-felt need, prior failure by others, licensing, unexpected results, skepticism by skilled artisans and lack of independent development. While the objective evidence appears

to be, prima facie, overwhelming, we need not reach a conclusion on this evidence because the examiner has not even established a prima facie case of obviousness with regard to the instant claimed subject matter since Allport, a lynchpin of the examiner's case, has been held by us to constitute nonanalogous art.

In addition to the nonanalogous nature of Allport, there are additional reasons for finding that the examiner has not established a prima facie case of obviousness with regard to the claimed subject matter. While appellant has contested many of the examiner's findings and complains about the dearth of evidence presented by the examiner regarding certain claim limitations, the examiner takes the position that much is "well known" or merely "an obvious design choice." We refer to page 5 of the answer, for example, where the examiner contends that Allport's filter should be combined with Brooks because using a thinner first phosphor "is a well-known technique." The examiner contends that the use of "other types of light detectors like a photodiode...as compared to film (in Alvarez et al) or photomultipliers (in Brooks) is an obvious design choice." The examiner also contends that the use of different filter materials is "a design choice." The use of stacked detectors is "well known." The use of different size detectors is "well known." The use of different phosphors is "a design

choice.” The use of various circuits and processing procedures in order to obtain an image is “a design choice well-known in the art.” While an examiner may, oftentimes, properly address an element as “well known” or “design choice,” in the instant case, it appears that the examiner has applied that reasoning to much of the claim limitations even in the face of appellant’s arguments to the contrary. When challenged about what is, in fact, “well known,” an examiner is required to submit objective evidence of the allegation.

Even though Allport is not analogous art, under 35 U.S.C. § 103, for a finding of obviousness, Allport may still be applicable, theoretically, under 35 U.S.C. § 102, since analogousness of the art is not relevant where the reference is anticipatory of the claimed subject matter. Clearly, Allport is not applicable to independent claims 1, 14, 15, 20, 21, 22 and to the claims dependent therefrom, since Allport is not directed to imaging. Independent claims 5, 24, 38, 39 and 40 are not directed to imaging. However, even these broad claims do not appear to be met by Allport. For example, claim 40 requires first and second components to be aligned wherein the second component receives radiation when the radiation has penetrated through a portion of the first component. Figure 2 of Allport appears to show such an arrangement, with

detectors 16' and 18' and a filter 19 therebetween and an x-ray source 15 for producing radiation. However, the detectors of Allport are ionization chambers with gas fills and it is unclear whether these detectors are first and second components of different first and second materials, as required by the claim. Since we would be required to speculate as to whether this limitation is disclosed by Allport, we still do not find Allport applicable to the claims. Claim 5 also requires such first and second different materials as do claims 24 and 39.

With regard to claim 38, Allport does not appear to disclose the claimed scintillators and pluralities of segments. While the references to Alvarez and Brooks may be used to teach these elements in the examiner's estimation, this would still require a combination with Allport for the teaching of the filter element and, as explained supra, this would be improper since Allport constitutes nonanalogous art.

Accordingly, we cannot sustain the examiner's rejection of claims 1-5, 10-16 and 20-42 under 35 U.S.C. § 103.

We also note that the examiner makes reference to various references: "Kelcz paper" [answer-page 6]; EP 0077018; Tofu (JA 0200983) and Bourrat (FR 2468999) [answer-page 8] in the explanation of the rejections. We have not considered these



Appeal No. 1999-2274  
Application No. 08/811,787

references since they form no part of the instant rejections. The examiner may not rely on any reference which does not form part of the statement of rejection. In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970).

The examiner's decision is reversed.

REVERSED

JAMES D. THOMAS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
ERROL A. KRASS	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
	)	
	)	
	)	
HOWARD B. BLANKENSHIP	)	
Administrative Patent Judge	)	

vsh

Appeal No. 1999-2274  
Application No. 08/811,787

Foley & Lardner  
777 East Wisconsin Avenue  
Milwaukee, WI 53202